

## Results by Standard

Legend (%)		
0-50%	51-75%	76-100%

Assessment: Idaho Ag Welding Number tested: 208	% Correct 16-17	% Correct 17-18	% Correct 18-19
<b>1) CONTENT STANDARD 1.0: IDENTIFY LAB ORGANIZATION AND SAFETY PROCEDURES</b>	79.65%	78.75%	77.02%
1) Performance Standard 1.1: Demonstrate general lab safety rules and procedures	79.63%	78.71%	77.35%
1.1.1 Describe general shop safety rules and procedures (i.e., safety test)	97.32%	97.89%	96.15%
1.1.2 Describe OSHA in workplace safety	86.58%	84.94%	84.13%
1.1.3 Comply with the required use of safety glasses, ear protection, gloves, and shoes during lab/shop activities, i.e., personal protection equipment (PPE)	96.31%	94.13%	89.66%
1.1.4 Operate lab equipment according to safety guidelines	77.52%	73.95%	72.12%
1.1.5 Identify and use proper lifting procedures and proper use of support equipment (i.e., rigging, chains, straps, cables)	89.26%	88.25%	86.06%
1.1.6 Utilize proper ventilation procedures for working within the lab/shop area	93.29%	94.28%	92.31%
1.1.7 Identify marked safety areas	88.59%	84.64%	82.69%
1.1.8 Identify the location and the types of fire extinguishers and other fire safety equipment; demonstrate knowledge of the procedures for using fire extinguishers and other fire safety equipment	73.83%	73.49%	75.00%
1.1.9 Identify the location and use of eye wash stations	91.28%	91.11%	89.66%
1.1.10 Identify the location of the posted evacuation routes	83.89%	84.94%	75.96%
1.1.11 Identify and wear appropriate clothing for lab/shop activities	46.98%	48.49%	45.67%
1.1.12 Secure hair and jewelry for lab/shop activities	91.95%	90.06%	92.31%
1.1.13 Demonstrate knowledge of the safety aspects of high voltage circuits	85.57%	85.54%	86.54%
1.1.17 Follow written instructions to complete work assignments	79.19%	73.19%	65.87%
1.1.18 Identify requirements for Hot Work Permits	37.92%	36.45%	39.66%
1.1.19 Identify what constitutes a confined space	57.05%	58.89%	56.97%
2) Performance Standard 1.2: Identify and utilize proper tools	81.88%	79.82%	77.88%
1.2.1 Identify hand tools and their appropriate usage	95.97%	97.89%	91.83%

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1.2.3 Demonstrate safe handling and use of appropriate tools	67.79%	61.75%	63.94%
3) Performance Standard 1.3: Identify and utilize power tools and equipment	78.30%	78.41%	73.56%
1.3.1 Identify power tools and equipment, and their appropriate usage	96.64%	93.37%	94.23%
1.3.2 Demonstrate safe handling and use of appropriate power tools and equipment	69.13%	70.93%	63.22%
<b>2) CONTENT STANDARD 2.0: APPLY FUNDAMENTAL PRINT READING, MEASUREMENT AND LAYOUT/FIT-</b>	63.87%	63.60%	61.46%
1) Performance Standard 2.1: Demonstrate print reading and sketching practices	64.26%	61.60%	60.46%
2.1.2 Identify and explain industry standard welding symbols	59.06%	57.53%	56.73%
2.1.7 Fabricate parts from a drawing or sketch	69.46%	65.66%	64.18%
3) Performance Standard 2.3: Utilize layout principles and practices	63.09%	67.62%	63.46%
2.3.3 Select appropriate materials to complete work assignment	53.69%	60.84%	53.37%
2.3.5 Layout parts using measurement practices	72.48%	74.40%	73.56%
<b>3) CONTENT STANDARD 3.0: IDENTIFY PROPERTIES OF METALS</b>	64.93%	64.91%	62.14%
1) Performance Standard 3.1: Identify material properties and science	64.93%	64.91%	62.14%
3.1.1 Identify the difference between ferrous and non-ferrous metals	64.93%	64.91%	62.14%
<b>4) CONTENT STANDARD 4.0: APPLY SHIELDED METAL ARC WELDING (SMAW) TECHNIQUES</b>	70.25%	70.68%	65.38%
1) Performance Standard 4.1: Safety procedures	58.72%	61.14%	57.45%
4.1.1 Identify and explain different types of welding current and polarity	58.72%	61.14%	57.45%
2) Performance Standard 4.2: Produce welds using SMAW on carbon steel	93.29%	89.76%	81.25%
4.2.2 Operate SMAW equipment	93.29%	89.76%	81.25%
<b>5) CONTENT STANDARD 5.0: APPLY GAS METAL ARC WELDING (GMAW-S, GMAW) TECHNIQUES</b>	65.15%	61.92%	60.03%
1) Performance Standard 5.1: Utilize safety procedures	66.44%	65.81%	69.23%
5.1.4 Demonstrate safe startup, shutdown, disassembly, and cylinder exchange procedures of GMAW equipment	66.44%	65.81%	69.23%
2) Performance Standard 5.2: Produce welds using GMAW-S on carbon steel	64.93%	61.27%	58.49%
5.2.1 Set up for GMAW-S operations	53.02%	52.11%	44.71%
5.2.2 Operate GMAW-S equipment	68.46%	62.45%	64.74%
5.2.3 Perform welds in the 1F position	69.46%	61.45%	58.89%
5.2.4 Perform welds in the 2F position	67.11%	65.06%	61.78%
5.2.7 Perform welds in the 1G position	72.48%	62.95%	69.71%
5.2.8 Perform welds in the 2G position	54.03%	56.48%	44.95%
5.2.9 Perform welds in the 3G position	67.11%	66.87%	62.02%
<b>6) CONTENT STANDARD 6.0: APPLY FLUX CORED ARC WELDING (FCAW-G) TECHNIQUE</b>	66.89%	66.06%	62.98%
2) Performance Standard 6.2: Produce welds using FCAW-G on carbon steel	66.89%	66.06%	62.98%

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<b>Number tested: 208</b>			
6.2.1 Set up for FCAW-G operations	77.85%	78.01%	72.12%
6.2.2 Operate FCAW-G equipment	32.89%	32.83%	32.21%
6.2.9 Perform welds in the 3G position	89.93%	87.35%	84.62%
<b>7) CONTENT STANDARD 7.0: APPLY GAS TUNGSTEN ARC WELDING (GTAW) TECHNIQUES</b>	42.28%	37.65%	37.98%
2) Performance Standard 7.2: Produce welds using GTAW on carbon steel	42.28%	37.65%	37.98%
7.2.2 Operate GTAW equipment	42.28%	37.65%	37.98%
<b>8) CONTENT STANDARD 8.0: APPLY THERMAL CUTTING PROCESSES</b>	64.43%	57.72%	55.51%
1) Performance Standard 8.1: Demonstrate oxy-fuel gas cutting (OFC)	71.07%	63.96%	61.43%
8.1.1 Perform safety inspections of OFC equipment and accessories	61.30%	49.80%	46.79%
8.1.3 Demonstrate safe startup, shutdown, disassembly, and cylinder exchange procedures of OFC equipment	67.79%	66.97%	65.38%
8.1.5 Operate OFC equipment	85.23%	81.33%	83.41%
8.1.6 Perform straight, square edge cutting operations in the flat position	81.88%	62.65%	49.52%
2) Performance Standard 8.2: Demonstrate plasma arc cutting (PAC) on carbon steel and aluminum	34.56%	29.67%	28.85%
8.2.5 Set up for PAC operations	51.68%	46.39%	46.15%
8.2.6 Operate PAC equipment	17.45%	12.95%	11.54%
<b>9) CONTENT STANDARD 9.0: IDENTIFY WELDING CODES, INSPECTIONS, AND TESTING PRINCIPLES</b>	64.81%	59.68%	55.56%
1) Performance Standard 9.1: Identify welding codes, qualifications and certifications	63.87%	59.74%	56.81%
9.1.3 Explain the importance of quality workmanship	71.14%	70.48%	68.11%
9.1.5 Perform a visual inspection of fillet welds	56.60%	49.00%	45.51%
2) Performance Standard 9.2: Demonstrate welding inspection and testing principles	70.47%	59.34%	48.08%
9.2.3 Examine tack, root passes, intermediate layers, and completed welds	70.47%	59.34%	48.08%
<b>10) CONTENT STANDARD 10.0: APPLY FABRICATION FUNDAMENTALS</b>	68.56%	64.05%	63.15%
1) Performance Standard 10.1: Utilize base metal preparation fundamentals	70.39%	66.15%	63.22%
10.1.1 Clean base metal for welding or cutting	64.77%	57.38%	59.62%
10.1.2 Identify and explain joint design	91.28%	89.16%	87.02%
10.1.3 Select the proper joint design based on a welding procedure specification (WPS) or instructors direction	26.17%	18.37%	13.94%
10.1.4 Mechanically bevel the edge of a mild steel plate (i.e., hand beveller, grinder)	74.94%	72.59%	66.19%
2) Performance Standard 10.2: Demonstrate fabrication techniques	67.34%	62.65%	63.10%
10.2.1 Demonstrate proper setup of fabrication area, equipment, and materials	80.76%	76.61%	76.60%
10.2.2 Construct projects in the proper sequence	80.09%	74.10%	74.68%

Assessment: Idaho Welding	% Correct 16-	% Correct 17-	% Correct 18-
Number tested: 337	17	18	19
10.2.3 Properly layout projects from welding prints	58.39%	53.82%	54.49%
10.2.4 Check work for accuracy	50.11%	46.08%	46.63%